

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0014] of the specification with the following paragraph:

“[0014] The present invention overcomes the drawbacks of natural cork, while incorporating the desired properties of the material. A synthetic cork compound is provided that includes a methyl vinyl silicone polymer and a microsphere agent. The compound includes polydimethylvinylsiloxane polymer from about 20 to 60 weight percent, fumed silica from about 20 to 60 weight percent, soda lime borosilicate (i.e. the microsphere agent) from about 5 to 50 weight percent, toasted oak dust from about 0.1 to 25 weight percent, a pigment from about 0.1 to 5 weight percent, and a cross-linking agent from about 0.1 to 5 weight percent. Preferably, the cross-linking agent is chloro-platanic acid. When this platinum catalyst is used, the compound will also contain high vinyl silicone polymer from about 0.5 to 10 weight percent, silicon hydride from about 0.1 to 25 weight percent, and ~~ethynyl~~ ethynyl cyclohexanol from about 0.05 to 5 weight percent. If a curing agent such as peroxide is used in place of the platinum catalyst, it is not necessary to include the high vinyl silicone polymer, silicon hydride, and ~~ethynyl~~ ethynyl cyclohexanol.

Please replace paragraph [0015] of the specification with the following paragraph:

[0015] The preferred synthetic cork compound of the present invention includes polydimethylvinylsiloxane polymer of about 40.7 weight percent, fumed silica of about 27.1 weight percent, soda lime borosilicate of about 26.2 weight percent, high vinyl silicone polymer of about 1.3 weight percent, toasted oak dust of about 1.0 weight percent, zinc ferrite (i.e. pigment) of about .25 weight percent, chloro-platanic acid of about 0.99 weight percent, silicon

hydride of about 2.3 weight percent, and ~~ethynl~~ ethynyl cyclohexanol of about 0.08 weight percent. Again, peroxide could be used in place of the platinum catalyst.

Please replace paragraph [0016] of the specification with the following paragraph:

[0016] A stopper made from a synthetic cork compound is also provided by the present invention. The synthetic cork compound includes polydimethylvinylsiloxane polymer from about 20 to 60 weight percent, fumed silica from about 20 to 60 weight percent, soda lime borosilicate (i.e. the microspheres) from about 5 to 50 weight percent, toasted oak dust from about 0.1 to 25 weight percent, a pigment from about 0.1 to 5 weight percent, and a cross-linking agent from about 0.1 to 5 weight percent. Preferably, the cross-linking agent is chloro-platonic acid. When this platinum catalyst is used, the compound will also contain high vinyl silicone polymer from about 0.5 to 10 weight percent, silicon hydride from about 0.1 to 25 weight percent, and ~~ethynl~~ ethynyl cyclohexanol from about 0.05 to 5 weight percent. If a curing agent such as peroxide is used in place of the platinum catalyst, it is not necessary to include the high vinyl silicone polymer, silicon hydride, and ~~ethynl~~ ethynyl cyclohexanol. The stopper is used to seal bottles or containers holding wine or other substances.

Please replace paragraph [0022] of the specification with the following paragraph:

[0022] TABLE 1

Compound	Preferred Amount (Weight %)	Range (Weight %)
Polydimethylvinylsiloxane Polymer	40.7	20-60
Fumed Silica	27.1	20-60
High Vinyl Silicone Polymer	1.3	0.5-10
Soda Lime Borosilicate (microsphere agent)	26.2	5-50
Toasted Oak Dust	1.0	0.1-25
Zinc Ferrite (pigment)	0.25	0.1-5
Silicon Hydride	2.3	0.1-25
Chloro-platanic Acid (cross-linking agent)	0.99	0.1-5
Ethynyl <u>Ethynyl</u> Cyclohexanol (inhibitor)	0.08	0.05-5

Please replace paragraph [0027] of the specification with the following paragraph:

[0027] If a catalyst such as chloro-platanic acid is used, the following components are also added to the compound: high vinyl silicone polymer from about 0.5 to 10 weight percent, silicon hydride from about 0.1 to 25 weight percent, and ~~ethynyl~~ ethynyl cyclohexanol from about 0.05 to 5 weight percent. The preferred amounts of these components are about 1.3, 2.3, and 0.08 weight percent, respectively. Both silicon hydride and high vinyl silicone polymer are added to insure that the catalyzing reaction works properly. The vinyl component of high vinyl silicone polymer is preferably 8-20 percent pendant vinyl with a preferred amount of 14 percent. ~~Ethynyl~~ Ethynyl cyclohexanol is an inhibitor that prevents premature curing of the synthetic cork compound at room temperature. A person of ordinary skill in the art will recognize that high vinyl silicone polymer, silicon hydride, and ~~ethynyl~~ ethynyl cyclohexanol are not necessary if the synthetic cork compound is peroxide cured.

Please replace paragraph [0031] of the specification with the following paragraph:

[0031] When using a molding process, as opposed to an extrusion process, it is generally desired to double the amount of inhibitor (i.e. ~~ethynl~~ ethynyl cyclohexanol). If the preferred amounts referred to in Table 1 are used to form the compound for molding, it is preferable to use 0.16 weight percent of ~~ethynl~~ ethynyl cyclohexanol.

Please replace paragraph [0034] of the specification with the following paragraph:

[0034] A synthetic cork compound was formulated using a polydimethylvinylsiloxane polymer of about 40.7 weight percent and a fumed silica filler of about 27.1 weight percent. A high vinyl silicone polymer of about 1.3 weight percent was added to provide enough active sites for silicon hydride to react with the polymer during cross linking. Toasted oak dust of about 1.0 weight percent and a zinc ferrite pigment of about 0.25 weight percent were then blended with the silicone polymers and filler. Although many different pigments could be used, the zinc ferrite pigment helps simulate the appearance of natural cork. After blending in soda lime borosilicate of about 26.2 weight percent and ~~ethynl~~ ethynyl cyclohexanol of about 0.08 weight percent, silicon hydride of about 2.3 weight percent was added and blended. The final ingredient was chloro-platanic acid of about 0.99 weight percent. This component was added and blended well with the other components. The order of mixing the various ingredients of the compound was important to insure that the compound did not crosslink at room temperature. Mixing of the compound was accomplished with a low-shear sigma blade mixer such as a Baker Perkins mixer.

Please replace the Abstract with the following:

A synthetic cork compound includes a methyl vinyl silicone polymer with a microsphere agent such as soda lime borosilicate in an amount of approximately 5 to 50 weight percent. The microsphere agent gives the compound a low density. The methyl vinyl silicone polymer preferably includes polydimethylvinylsiloxane polymer from about 20 to 60 weight percent and fumed silica from about 20 to 60 weight percent. Preferably, the compound is catalyzed using chloro-platanic acid from about 0.1 to 5 percent. Additional components of the compound include toasted oak dust from about 0.1 to 25 weight percent, a pigment from about 0.1 to 5 weight percent, silicon hydride from about 0.1 to 25 weight percent, and ~~ethynl~~ ethynyl cyclohexanol from about 0.05 to 5 weight percent.